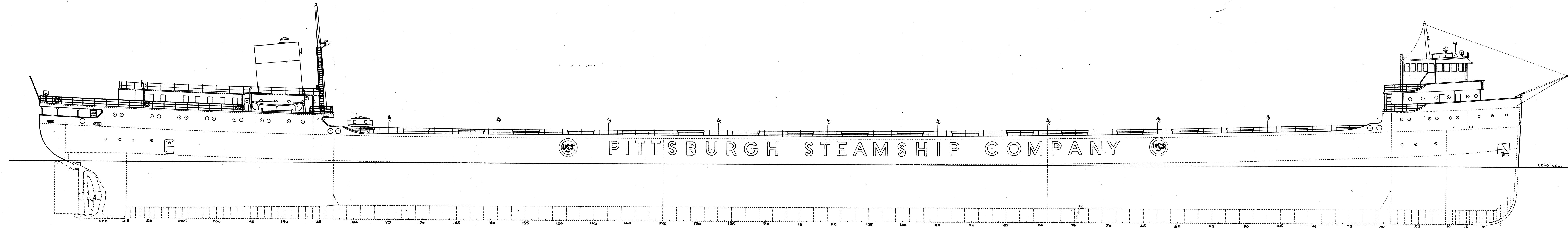
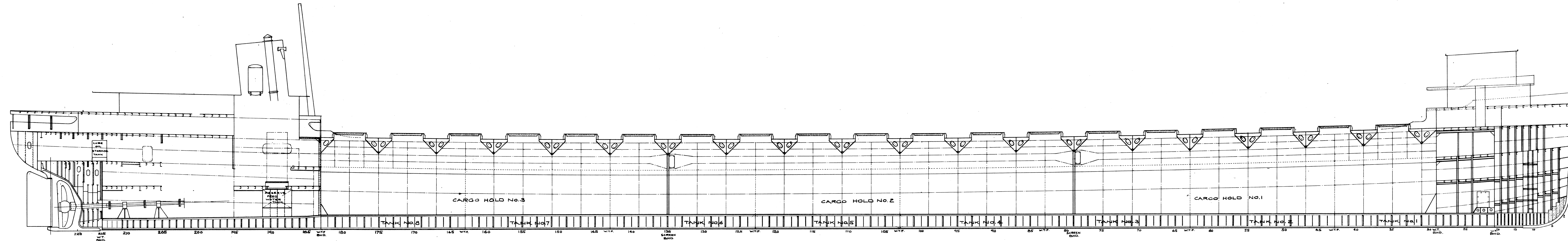




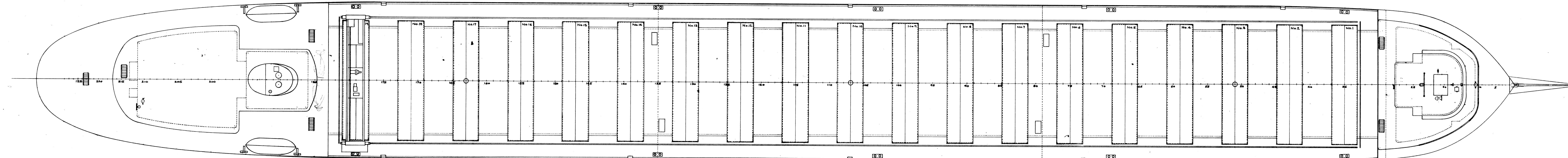
BOOKLET OF GENERAL PLANS
HULLS 867-8
BUILT BY
LORAIN OHIO PLANT
OF
THE AMERICAN SHIP BUILDING CO.
CLEVELAND OHIO
1951

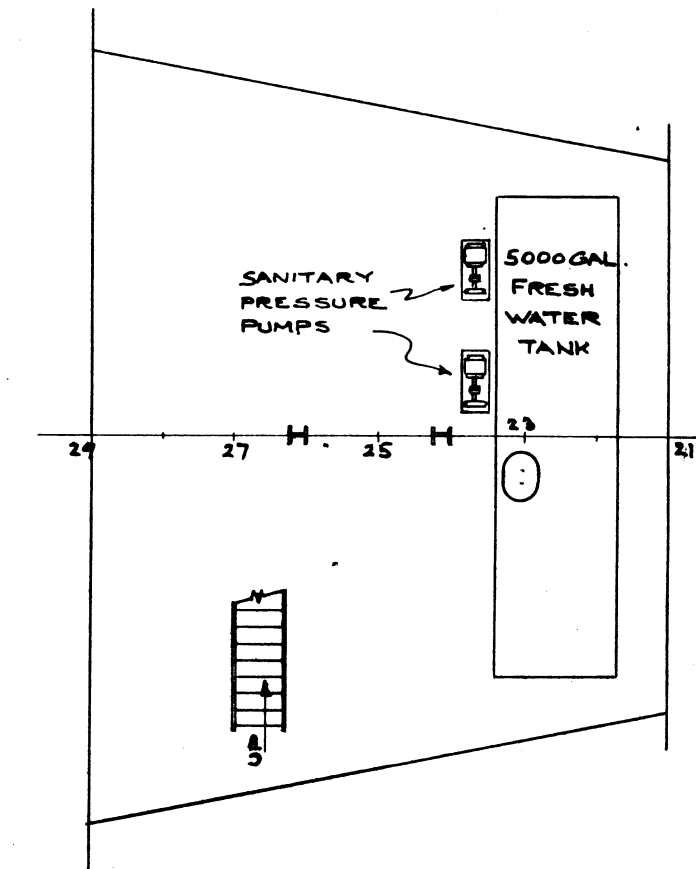
- 1. INDEX OF PLANS
- 2. OUTBOARD PROFILE
- 3. INBOARD PROFILE
- 4. SPAR DECK PLAN
- 5. FORWARD CABINS
- 6. AFTER CABINS
- 7. ENGINE ROOM PLANS
- 8. MIDSHIP SECT. AND BHD.
- 9. DATA SHEET



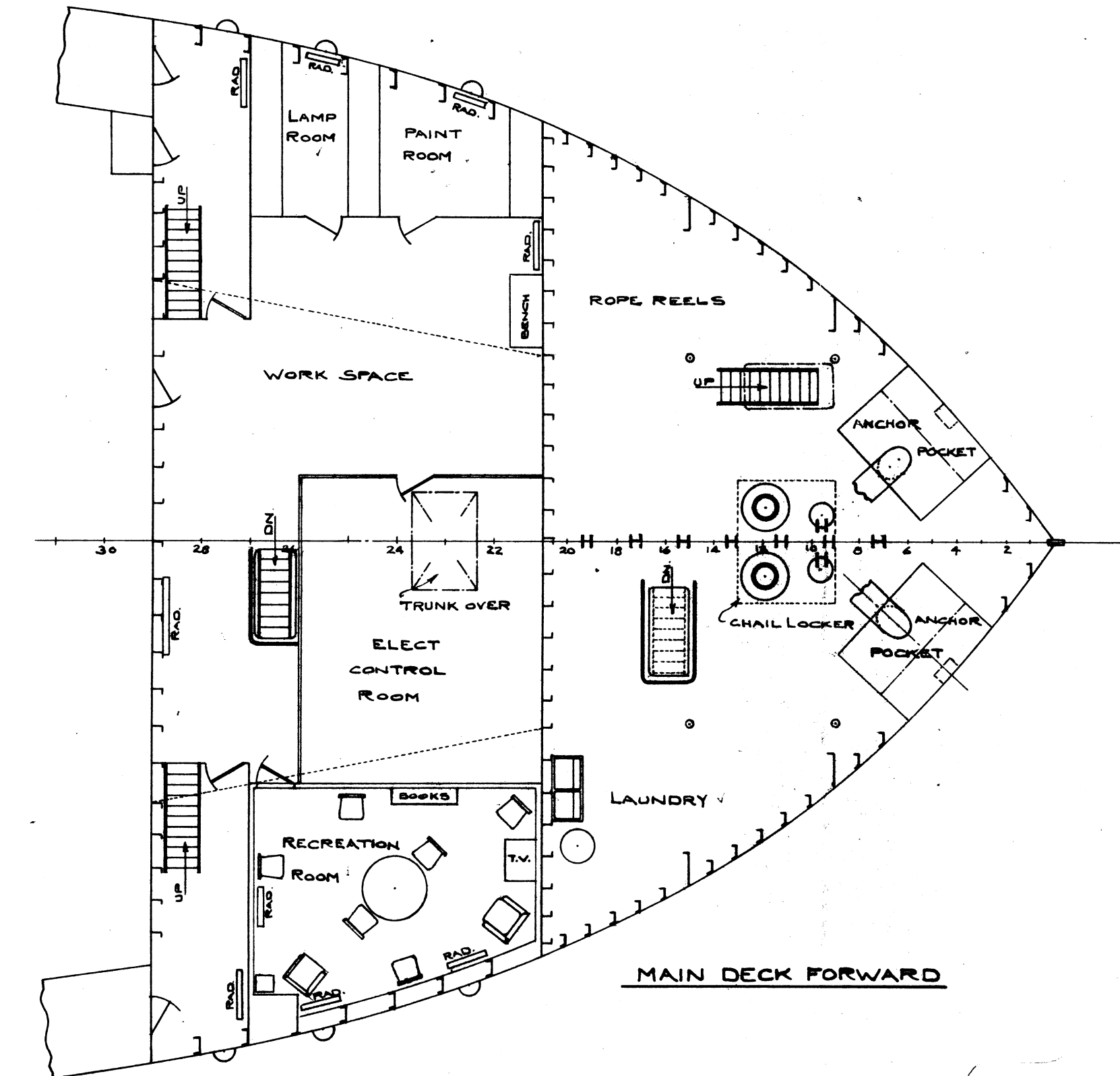


1/2
906

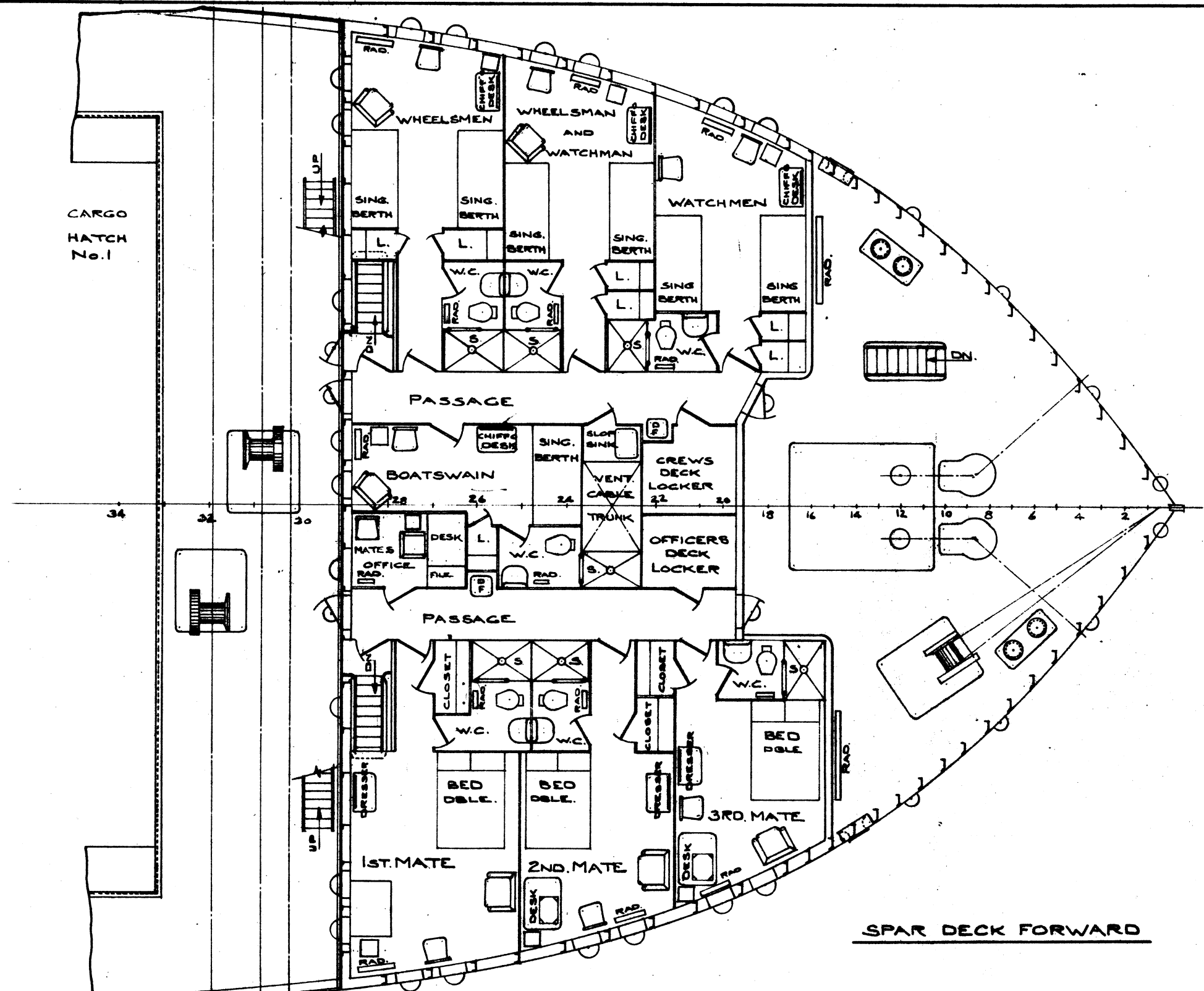




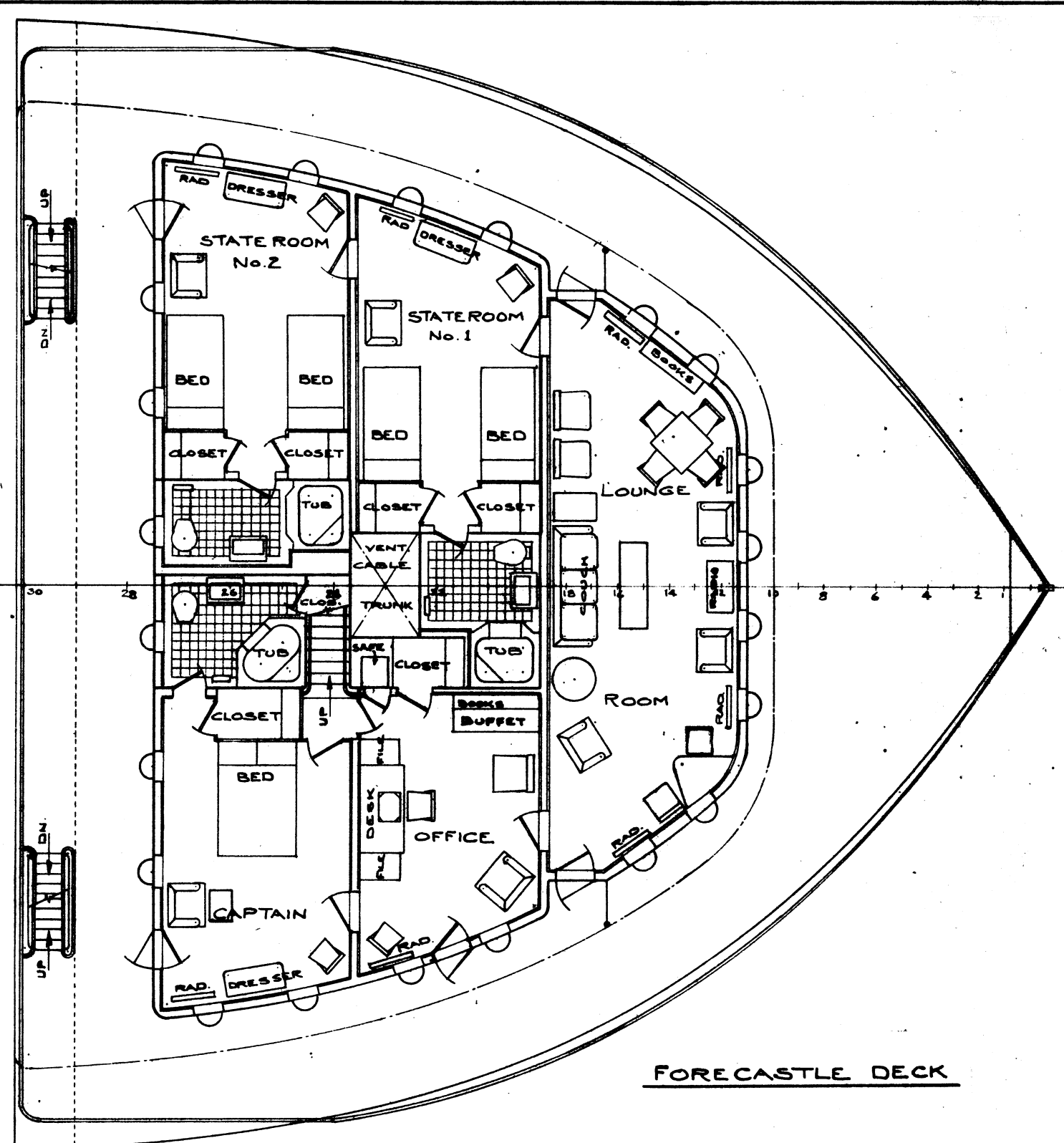
TANK TOP FORWARD



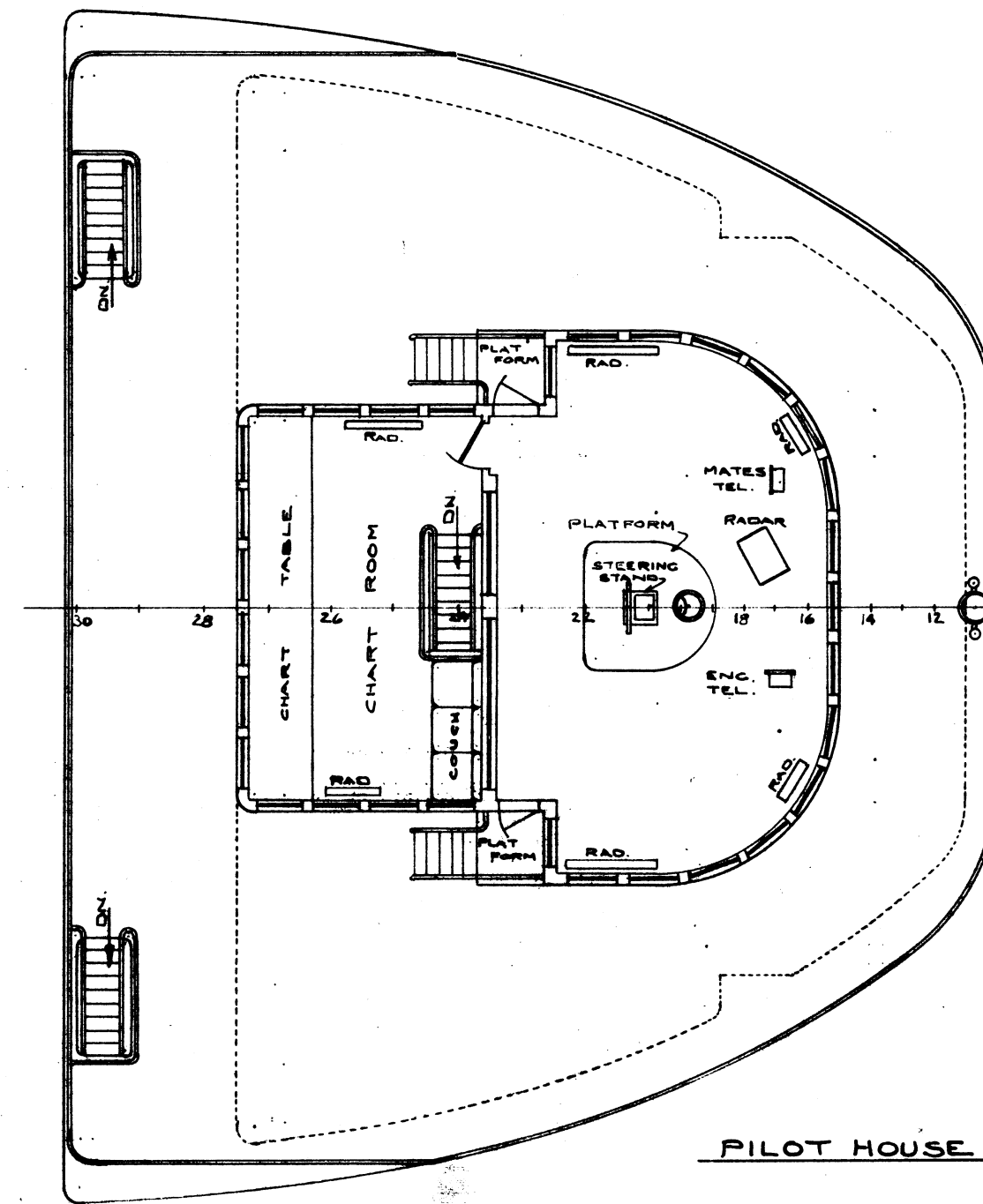
MAIN DECK FORWARD



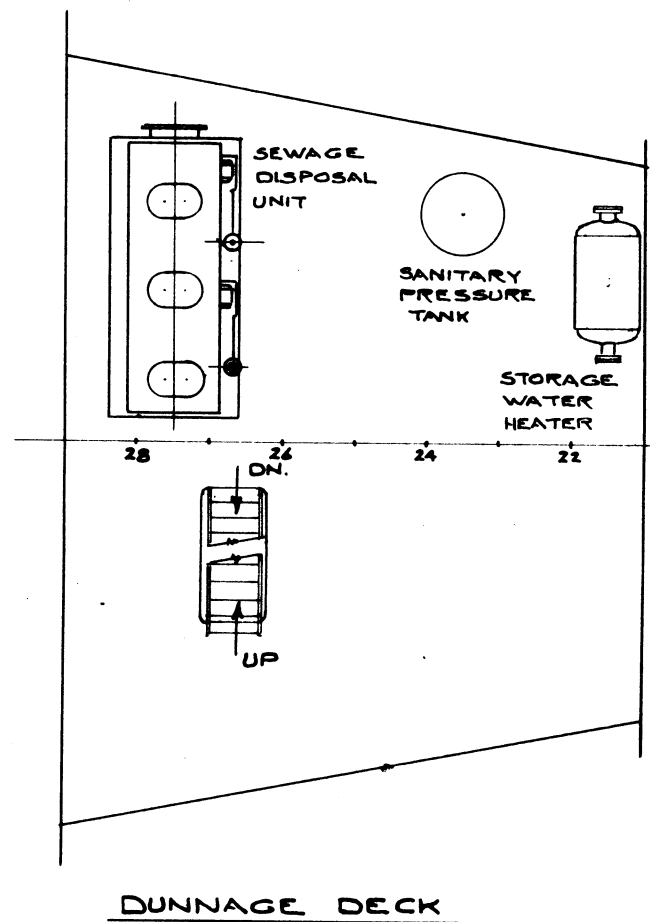
SPAR DECK FORWARD



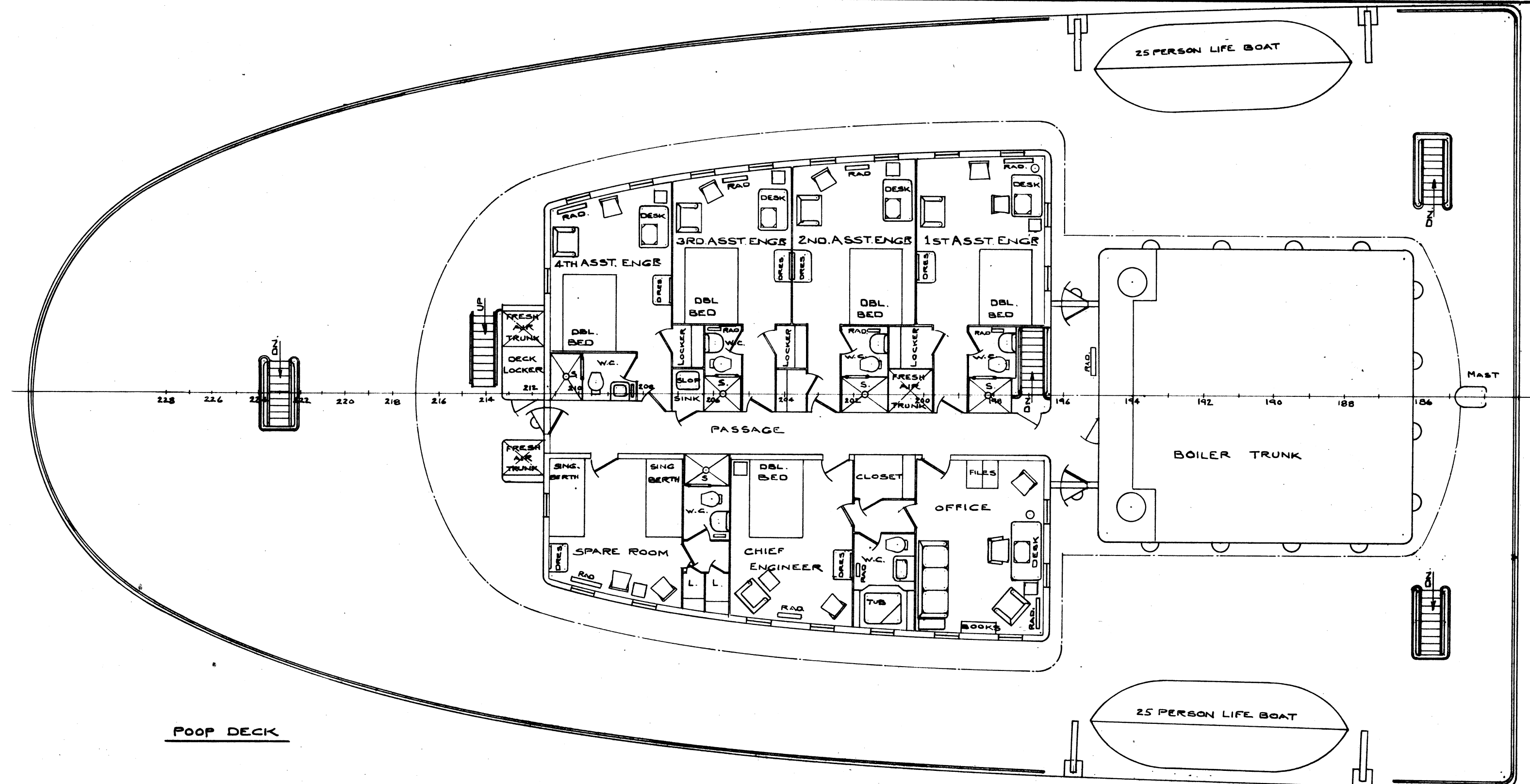
FORECASTLE DECK



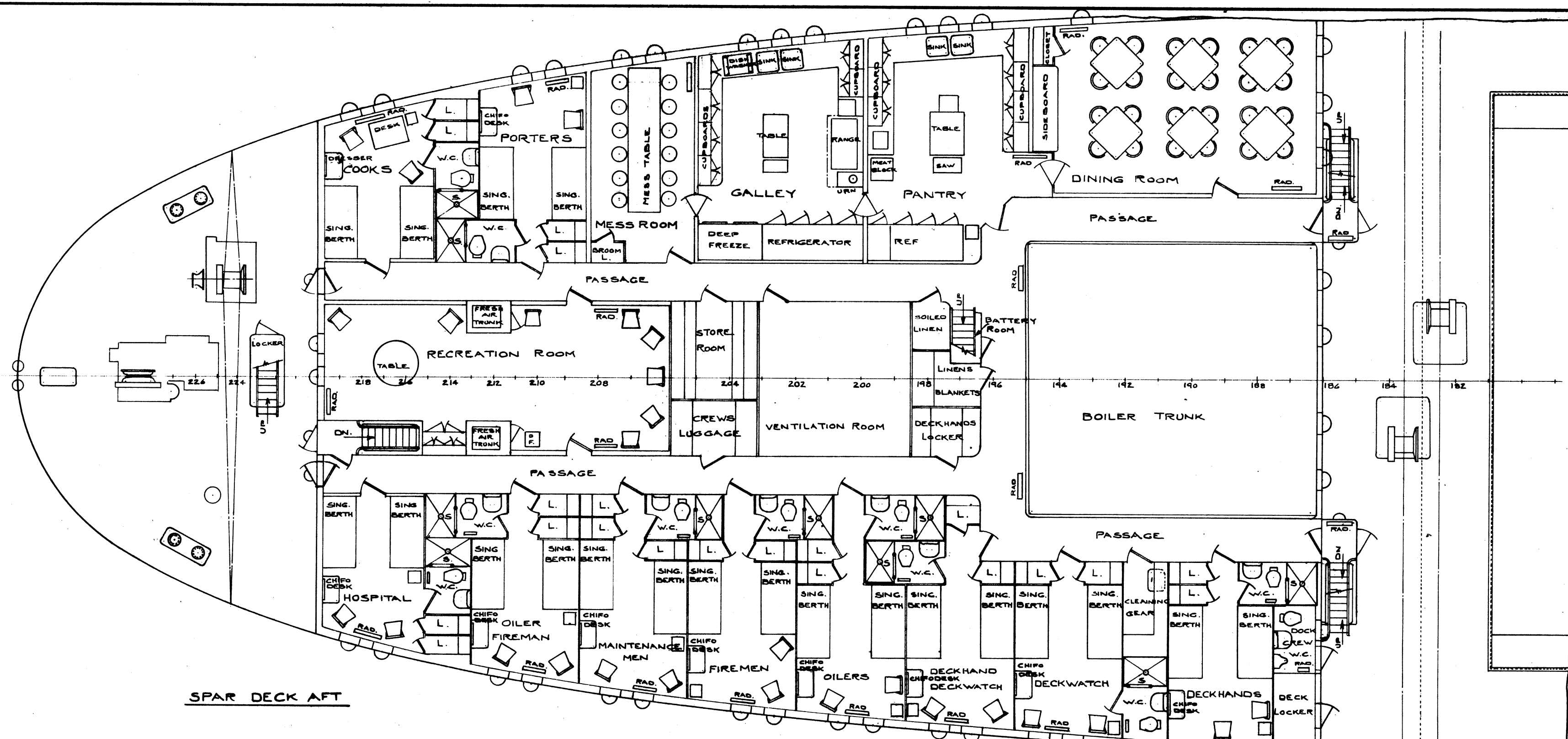
PILOT HOUSE



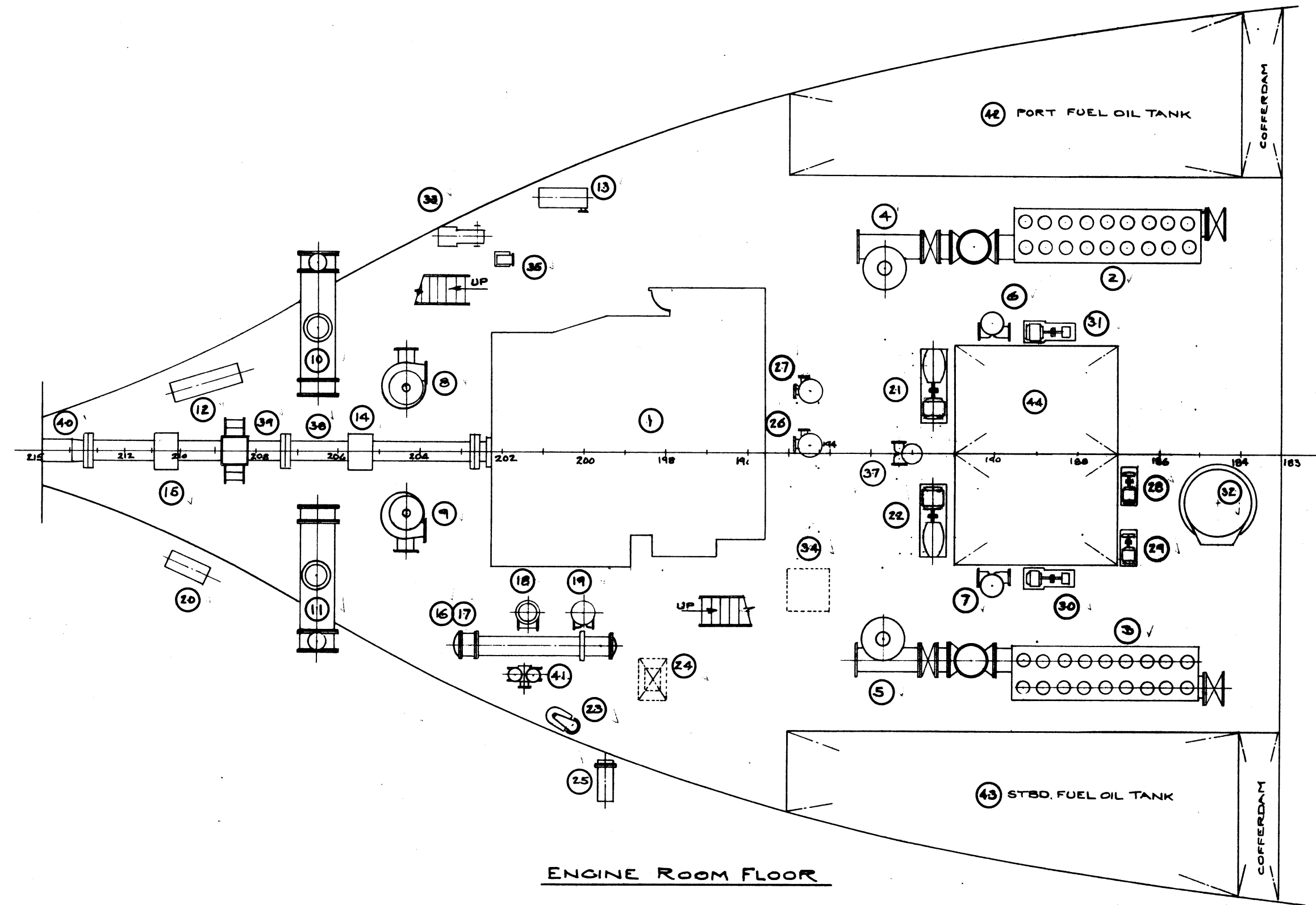
DUNNAGE DECK



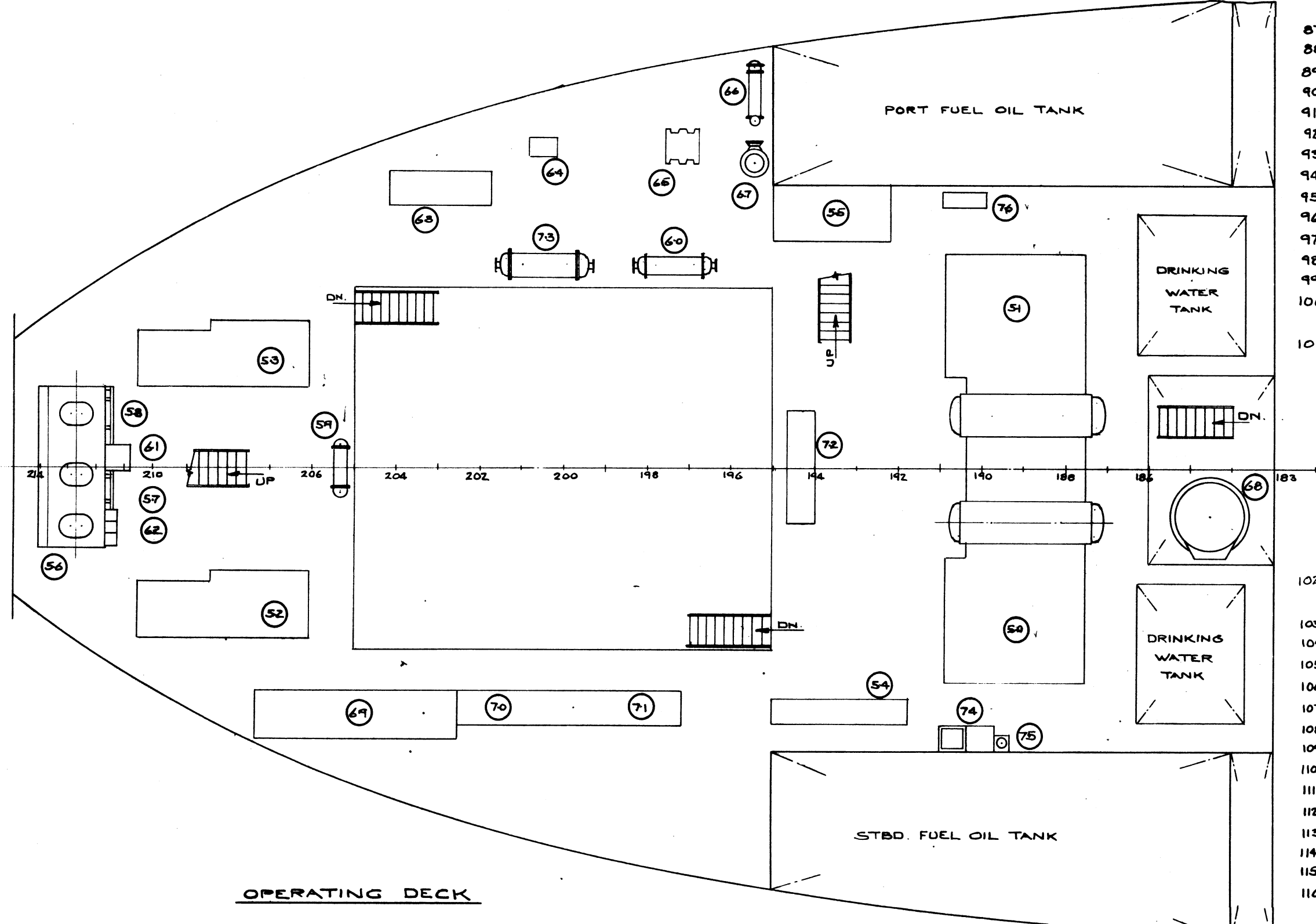
POOP DECK



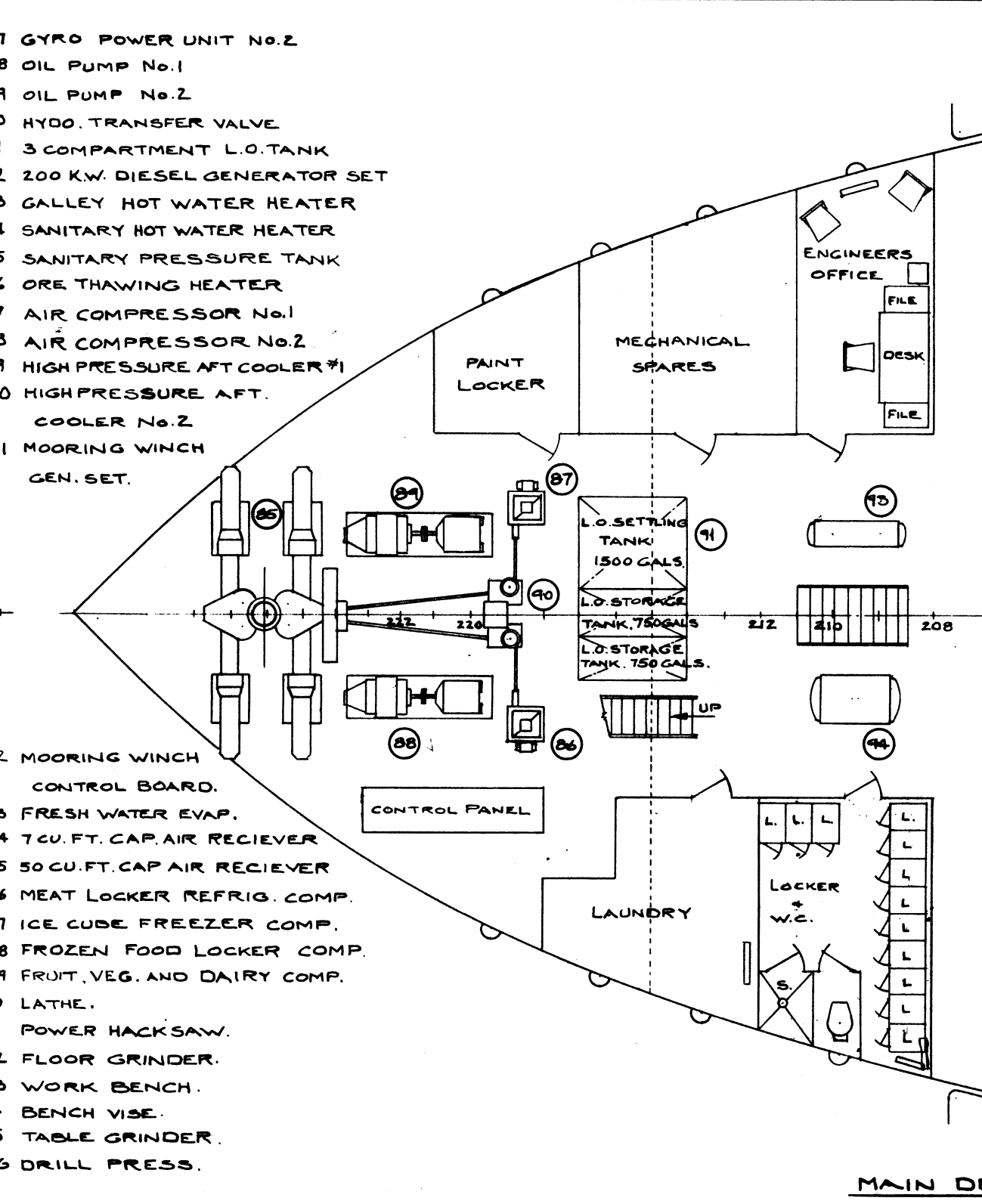
SPAR DECK AFT



ENGINE ROOM FLOOR



OPERATING DECK



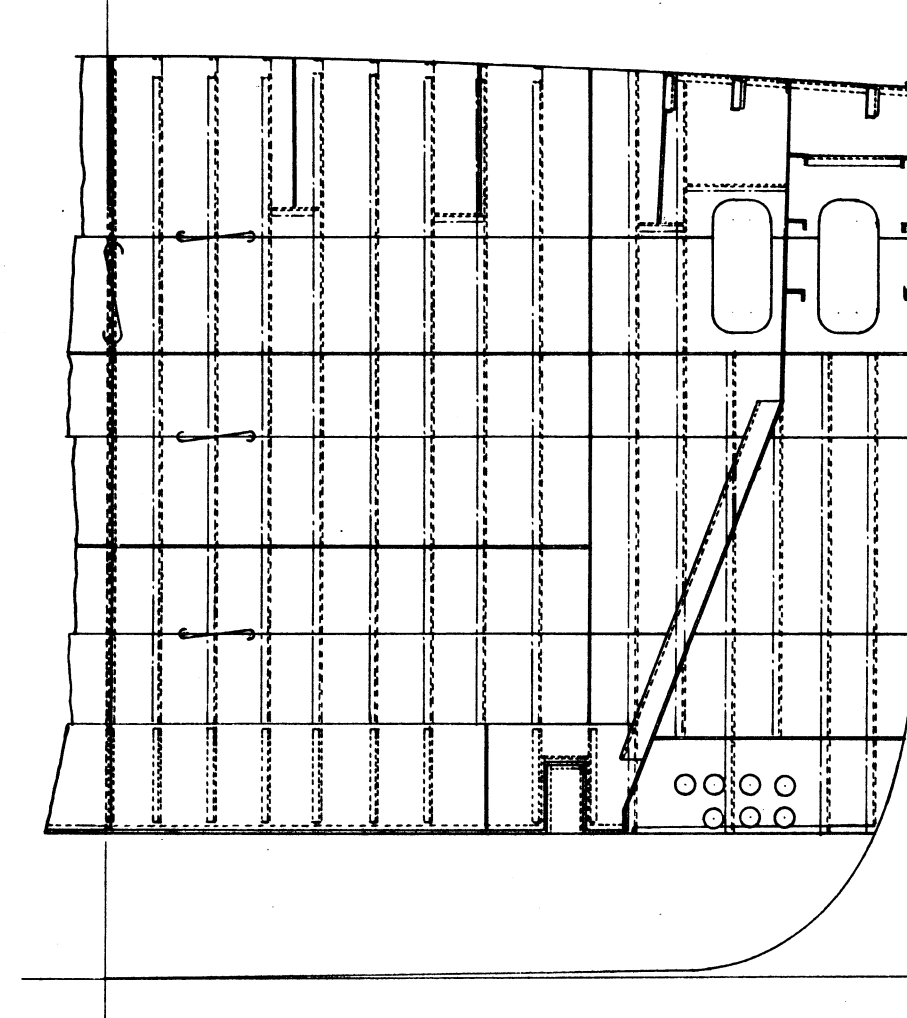
MAIN DECK AFT.

- 87 GYRO POWER UNIT No.2
- 88 OIL PUMP No.1
- 89 OIL PUMP No.2
- 90 HYDRO. TRANSFER VALVE
- 91 3 COMPARTMENT L.O. TANK
- 92 200 KW. DIESEL GENERATOR SET
- 93 GALLEY HOT WATER HEATER
- 94 SANITARY HOT WATER HEATER
- 95 SANITARY PRESSURE TANK
- 96 ORE THAWING HEATER
- 97 AIR COMPRESSOR No.1
- 98 AIR COMPRESSOR No.2
- 99 HIGH PRESSURE AFT. COOLER No.1
- 100 HIGH PRESSURE AFT. COOLER No.2
- 101 MOORING WINCH GEN. SET.

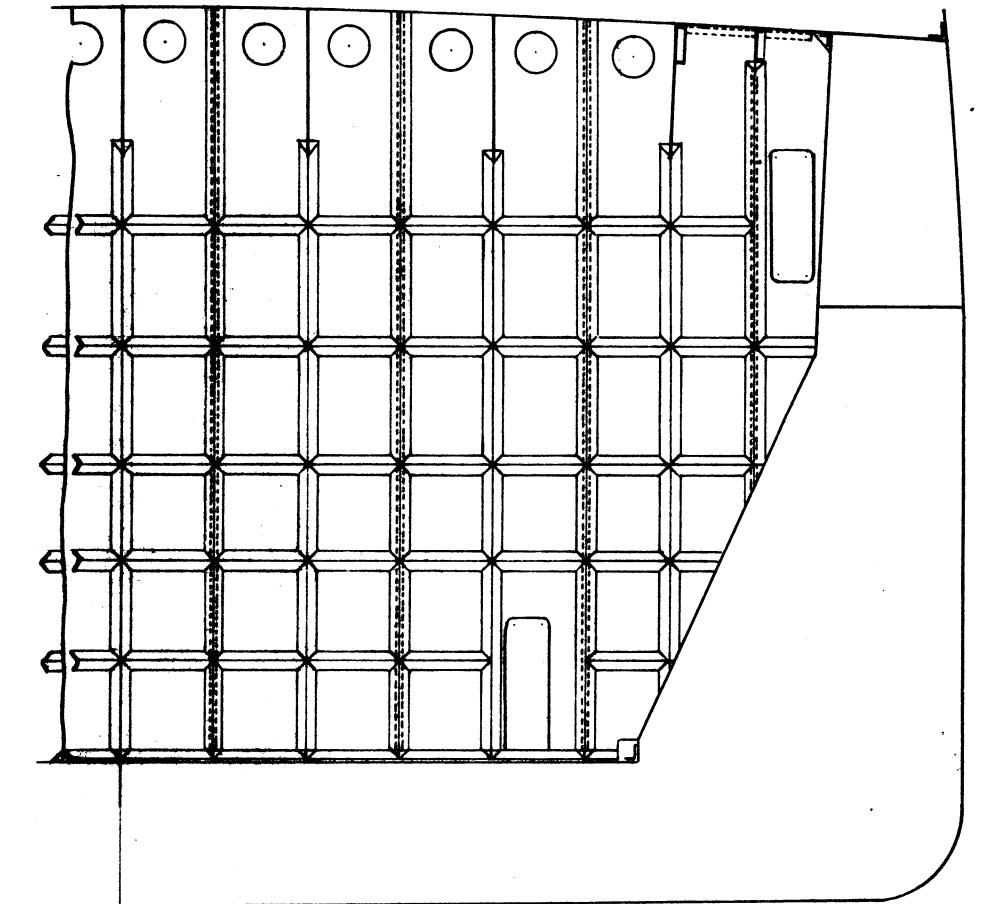
- 102 MOORING WINCH CONTROL BOARD.
- 103 FRESH WATER EVAP.
- 104 7 CU. FT. CAP. AIR RECIEVER
- 105 50 CU. FT. CAP. AIR RECIEVER
- 106 MEAT LOCKER REFRIG. COMP.
- 107 ICE CUBE FREEZER COMP.
- 108 FROZEN FOOD LOCKER COMP.
- 109 FRUIT, VEG. AND DAIRY COMP.
- 110 LATHE.
- 111 POWER HACKSAW.
- 112 FLOOR GRINDER.
- 113 WORK BENCH.
- 114 BENCH VISE.
- 115 TABLE GRINDER.
- 116 DRILL PRESS.

MACHINERY LIST

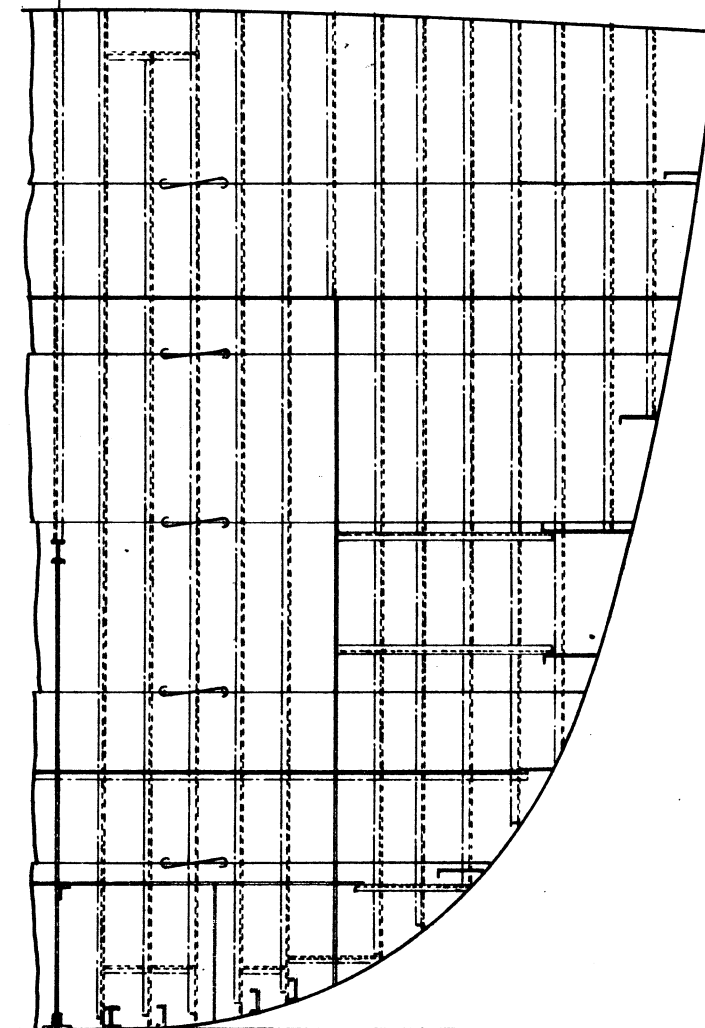
- | | |
|--------------------------------|---|
| 1 MAIN PROPULSION UNIT. | 44 RESERVE FEED WATER TANK |
| 2 PORT BALLAST MANIFOLD No.2 | 45 |
| 3 STBD. BALLAST MANIFOLD No.1 | 46 |
| 4 PORT MAIN BALLAST PUMP No.2 | 47 |
| 5 STBD. MAIN BALLAST PUMP No.1 | 48 |
| 6 PORT AUX. BALLAST PUMP No.2 | 49 |
| 7 STBD. AUX. BALLAST PUMP No.1 | 50 STBD. BOILER. |
| 8 PORT CIRCULATING PUMP No.2 | 51 PORT BOILER. |
| 9 STBD. CIRCULATING PUMP No.1 | 52 STBD. TURBO GENERATOR |
| 10 PORT AUX. CONDENSER No.2 | 53 PORT TURBO GENERATOR |
| 11 STBD. AUX. CONDENSER No.1 | 54 COMBUSTION CONTROL PANEL |
| 12 AUX. CONDENSATE PUMP PORT | 55 FUEL OIL BURNING EQUIPMENT. |
| 13 GEN. SERVICE & COOLER PUMP | 56 SEWAGE TANK |
| 14 FWD. LINE SHAFT BEARING | 57 SEWAGE PUMP No.1 |
| 15 AFT. LINE SHAFT BEARING | 58 SEWAGE PUMP No.2 |
| 16 LUBE OIL COOLER No.1 | 59 AUX. AIR EJECTORS & INTER CONDENSER. |
| 17 LUBE OIL COOLER No.2 | 60 MAIN AIR EJECTORS |
| 18 LUBE OIL PUMP No.1 | 61 HYPO PUMP |
| 19 LUBE OIL PUMP No.2 | 62 HYPO TANK |
| 20 BILGE PUMP | 63 MAIN FEED PUMP |
| 21 PORT FIRE PUMP No.1 | 64 AUX. FEED PUMP |
| 22 STBD. FIRE PUMP No.2 | 65 IN PORT FEED PUMP |
| 23 LUBE OIL PURIFIER | 66 DRAINS COOLER |
| 24 LUBE OIL SLUDGE TANK | 67 1ST STAGE FEED WATER HEATER |
| 25 LUBE OIL HEATER | 68 HEATING BOILER |
| 26 MAIN CONDENSATE PUMP No.1 | 69 MAIN SWITCHBOARD |
| 27 MAIN CONDENSATE PUMP No.2 | 70 CONTROL GROUP No.1 |
| 28 SANITARY PRESSURE PUMP No.1 | 71 CONTROL GROUP No.2 |
| 29 SANITARY PRESSURE PUMP No.2 | 72 MAIN CONTROL & GAGE BOARD |
| 30 BALLAST PRIMING PUMP No.1 | 73 MAIN AFTER CONDENSER |
| 31 BALLAST PRIMING PUMP No.2 | 74 LABORATORY TESTING SINK |
| 32 HEAT-BOILER. | 75 SAMPLE COOLER |
| 33 SANITARY FILLING PUMP. | 76 SAND BOX |
| 34 ATMOSPHERIC DRAIN TANK | 77 |
| 35 PULSAFEEDER. | 78 |
| 36 HYPOCHLORITE TANK. | 79 |
| 37 FUEL OIL TRANSFER PUMP | 80 |
| 38 FWD. INTERMEDIATE SHAFT | 81 |
| 39 AFT. INTERMEDIATE SHAFT | 82 |
| 40 TAIL SHAFT. | 83 |
| 41 LUBE OIL STRAINER | 84 |
| 42 PORT FUEL TANK | 85 STEERING GEAR |
| 43 STBD. FUEL TANK | 86 GYRO POWER UNIT No.1 |



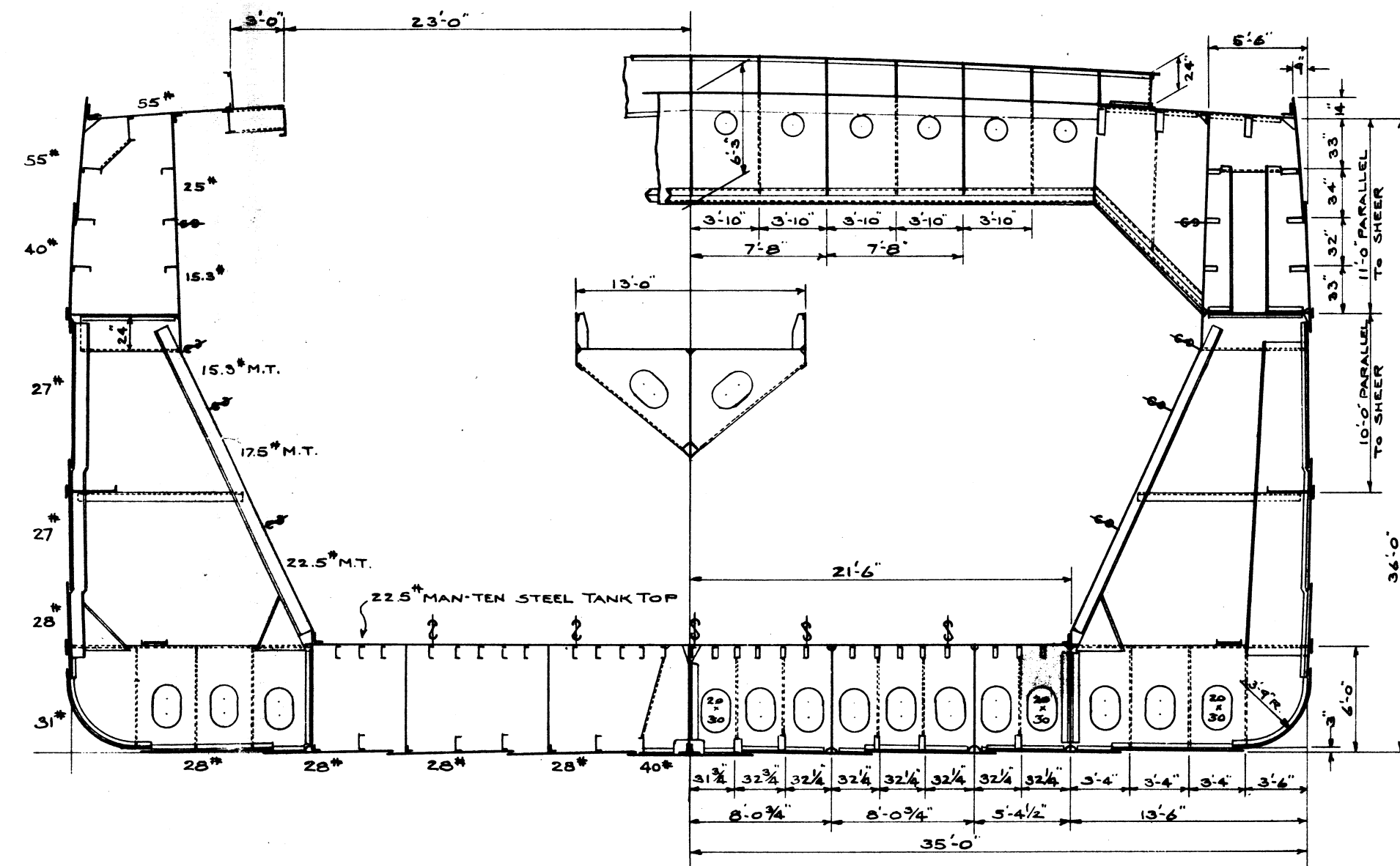
AFT CARGO HOLD BULKHEAD 183
LOOKING AFT



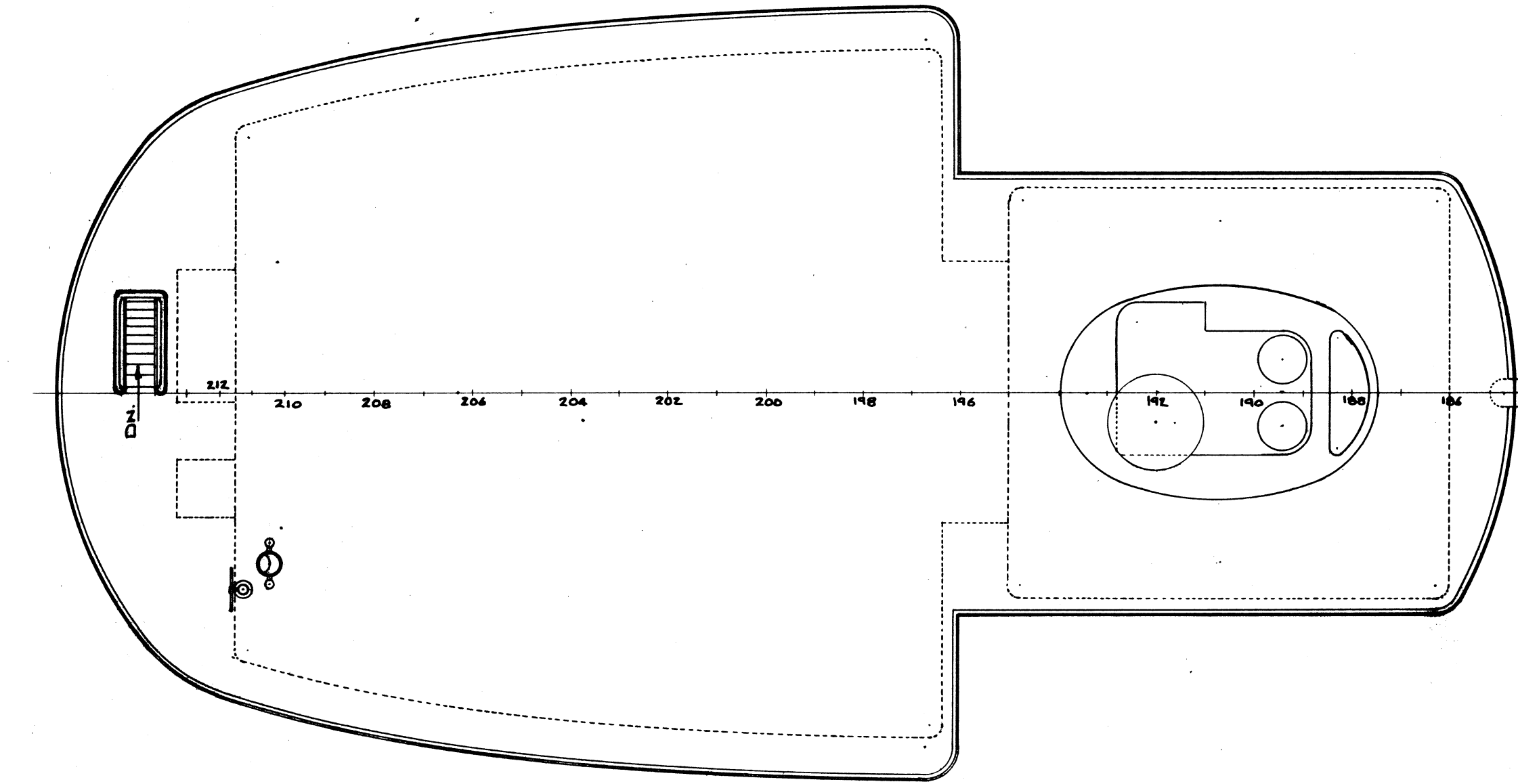
SCREEN BULKHEADS 79 AND 135
LOOKING FORWARD



COLLISION BULKHEAD No. 21 w.t.
LOOKING FORWARD



MIDSHIP SECTION



DECKHOUSE ROOF AFT

COMPLEMENT OF CREW

| FORWARD CABINS | AFTER CABINS | |
|---|---|---|
| 1.....CAPTAIN | 1.....CHIEF ENGINEER | 1.....STEWARD |
| 1.....1ST.MATE | 1.....1ST. ENGINEER | 1.....2ND. COOK |
| 1.....2ND.MATE | 1.....2ND. ENGINEER | 2.....PORTERS |
| 1.....3RD.MATE | 1.....3RD. ENGINEER | 4.....MEN GALLEY CREW |
| 1.....BOATSWAIN | 1.....4TH. ENGINEER | |
| 3.....WHEELSMEN | 3.....OILERS | |
| 3.....WATCHMEN | 3.....FIREMEN | 4.....OWNERS FORWARD |
| 11 MEN FORWARD CREW | 3.....DECK WATCHMEN | 2.....SPARES AFT |
| | 3.....DECK HANDS | |
| 34 MEN TOTAL CREW | 2.....MAINTENANCE MEN | 26.....BATH ROOMS |
| | 19 MEN AFT CREW | 1.....DOCK CREWS W.C. (SPAR DK. AFT.) |
| | | 1.....SHOWER IN LOCKER ROOM (MAIN DK. AFT.) |
| 1.....CHART ROOM | 2.....PAINT ROOMS (MAIN DK. FWD. + MAIN DK. AFT.) | |
| 1.....OBSERVATION LOUNGE | 1.....VENTILATION ROOM (SPAR DK. AFT.) | |
| 2.....STATE ROOMS | 1.....ELECTRICAL CONTROL ROOM (MAIN DK. FWD.) | |
| 1.....SPARE ROOM (POOP DK.) | 1.....MECHANICAL SPARES ROOM (MAIN DK. AFT.) | |
| 1.....HOSPITAL (SPAR DK. AFT.) | 1.....LOCKER ROOM (MAIN DK. AFT.) | |
| 1.....RECREATION ROOM (SPAR DK. AFT.) | 1.....STORE ROOM (SPAR DK. AFT.) | |
| 1.....RECREATION ROOM (MAIN DK. FWD.) | 1.....DECK HANDS LOCKER (SPAR DK. AFT.) | |
| 1.....DINING ROOM (SPAR DK. AFT.) | 1.....CREWS LUGGAGE ROOM (SPAR DK. AFT.) | |
| 1.....MESS ROOM (SPAR DK. AFT.) | 1.....DECK LOCKER (SPAR DK. AFT.) | |
| 1.....PANTRY (SPAR DK. AFT.) | 1.....LINEN ROOM (SPAR DK. AFT.) | |
| 1.....GALLEY (SPAR DK. AFT.) | 1.....SOILED LINEN ROOM (SPAR DK. AFT.) | |
| 1.....CAPTAIN'S OFFICE. | 1.....CREWS DECK LOCKER (SPAR DK. FWD.) | |
| 2.....CHIEF ENGINEER OFFICES (POOP DK. + MAIN DK. AFT.) | 1.....OFFICERS DECK LOCKER (SPAR DK. FWD.) | |
| 1.....MATES OFFICE (SPAR DK. FWD.) | 1.....DECK LOCKER (POOP DK.) | |
| 2.....LAUNDRY ROOMS (MAIN DK. FWD. + MAIN DK. AFT.) | 1.....BATTERY ROOM (SPAR DK. AFT.) | |
| 1.....LAMP ROOM (MAIN DK. AFT.) | | |

CAPACITIES

HOLD CAPACITIES

HOLD NO. 1.....
HOLD NO. 2.....
HOLD NO. 3.....

BALLAST TANK CAPACITIES

| | | | |
|-----------------|-------------------|----------------|-----------|
| TANK NO. 1..... | TONS STBD. SIDE + | TONS PORT SIDE | LONG TONS |
| TANK NO. 2..... | TONS STBD. SIDE + | TONS PORT SIDE | LONG TONS |
| TANK NO. 3..... | TONS STBD. SIDE + | TONS PORT SIDE | LONG TONS |
| TANK NO. 4..... | TONS STBD. SIDE + | TONS PORT SIDE | LONG TONS |
| TANK NO. 5..... | TONS STBD. SIDE + | TONS PORT SIDE | LONG TONS |
| TANK NO. 6..... | TONS STBD. SIDE + | TONS PORT SIDE | LONG TONS |
| TANK NO. 7..... | TONS STBD. SIDE + | TONS PORT SIDE | LONG TONS |
| TANK NO. 8..... | TONS STBD. SIDE + | TONS PORT SIDE | LONG TONS |

FORE PEAK TANK.....

AFT PEAK TANK.....

TANK CAPACITIES

| | |
|--------------------------------------|--------------|
| FUEL OIL TANK PORT SIDE..... | 74,740 GALS. |
| FUEL OIL TANK STBD. SIDE..... | 74,740 GALS. |
| FUEL OIL DAY TANK PORT SIDE..... | 4,031 GALS. |
| DIESEL OIL TANK STBD. SIDE..... | 4,031 GALS. |
| LUBE OIL SETTLING TANK..... | 1,500 GALS. |
| LUBE OIL STORAGE TANK..... | 750 GALS. |
| LUBE OIL STORAGE TANK..... | 750 GALS. |
| DRINKING WATER TANK FWD..... | 5,000 GALS. |
| DRINKING WATER TANK P. SIDE AFT..... | 4,700 GALS. |
| DRINKING WATER TANK S. SIDE AFT..... | 4,700 GALS. |
| RESERVE FEED WATER TANK..... | 16,845 GALS. |

EQUIPMENT DATA

STEAM TURBINE (GENERAL ELECTRIC)

7000 S.H.P. NORMAL RATING CROSS COMPOUND AND
DOUBLE REDUCTION GEAR.

SHAFT HORSE POWER (3650 H.P. AND 3350 L.P.) NORMAL RATING 7000 AND
MAX. 7700

H.P. TURBINE R.P.M. NORMAL 5980

L.P. TURBINE R.P.M. NORMAL 4485

PROPELLER R.P.M. NORMAL 108 MAX. 111.5

ASTERN TURBINE DELIVER 2800 S.H.P. AT 54 PROPELLER R.P.M.

WITH NORMAL AHEAD FLOW AND INLET PRESSURE.

REDUCTION GEAR AND PINION DATA

H.P. PINION (PITCH CIRCLE) = 10"

L.P. PINION (PITCH CIRCLE) = 13.35"

FIRST REDUCTION GEAR DIA. = 83.037"

LOW SPEED PINION DIA. = 21.067"

MAIN GEAR DIA. = 145.992"

H.P. FIRST REDUCTION RATIO = 8.3

L.P. FIRST REDUCTION RATIO = 6.22

SECOND REDUCTION RATIO = 6.93

CONDENSER PERFORMANCE

COOLING SURFACE SQ. FT. = 6500

NUMBER OF WATER PASSES = 2

STEAM CONDENSED 1LB/HR = 50,000

COOLING WATER SUPPLY, G.P.M. = 8600

COOLING WATER TEMPERATURE = 75

EJECTOR PERFORMANCE

OPERATING STEAM PRESSURE PSIG = 180

TWO 12,000 LB. STOCKLESS BOWER ANCHORS.

ONE 10,000 LB. STOCKLESS STERN ANCHORS.

180 FATHOMS 2 3/8" DIA. FORGED ALLOY STEEL STUD LINK CHAIN. (FORWARD)

90 FATHOMS 2 3/8" DIA. CAST STEEL STUD LINK CHAIN. (AFT.)

300 FEET 8" CIR. THREE STRAND NYLON LINE. (FWD. TOW LINES)

120 FEET 8" CIR. THREE STRAND NYLON LINE. (AFT. TOW LINES)

300 FEET 8" CIR. THREE STRAND MANILA LINE.

6 MOORING LINES 1 1/8" DIA. 6x19 GALV. IMPROVED FLOW STEEL WIRE ROPE,
500 FEET EACH. (3000 FT.)

10 HEAVING LINES 1 1/4" CIR. BRAIDED LINE 100 FEET EACH. (1000 FT.)

STEERING GEAR (C.H. WHEELER MFG. CO. ELECTRO-HYDRAULIC,
RAPSON SLIDE TYPE.)

PROPELLER - FOUR BLADED SECTIONAL TYPE 17 1/2" DIA. (MANGANESE BRONZE)

GENERATORS - TWO 400 K.W. GENERATORS, 450 VOLT, 3 PHASE, 60 CYCLE

.8 POWER FACTOR. (G.E. CORP.)

ONE DIESEL ENGINE DRIVEN 185 K.W. GENERATOR, 450 V, 3 PHASE, 60 CYCLE.

.8 POWER FACTOR. (G.E. CORP.)

TWO 25 PERSON CAPACITY LIFE BOAT.

ONE 18 PERSON CAPACITY LIFE RAFT. (CATAMARAN TYPE)

24 - 30" DIA. LIFE RING BUOYS.

52 CORK FILLED LIFE PRESERVER VESTS.

RUDDER - UNBALANCED CONTRA-GUIDE RUDDER. (GOLDSCHMIDT TYPE)

BOILERS - TWO FOSTER WHEELER BENT TUBE TYPE WATER TUBE,

TWO DRUM BOILERS.

RATING NORMAL = 31,000 LBS. PER HR.

MAX. LOAD = 39,000 LBS. PER HR.

NORMAL LOAD STEAM PRESSURE AT SUPERHEATER OUTLET = 450 P.S.I.G.

NORMAL LOAD STEAM TEMPERATURE AT SUPERHEATER OUTLET = 750 °F.

NORMAL LOAD AIR TEMPERATURE FROM AIR HEATER = 290 °F.

FEED WATER TEMPERATURE TO ECONOMIZER = 240 °F.

HULL NUMBERS 867 AND 868

PRINCIPAL DIMENSIONS

| | |
|------------------------------------|---------|
| LENGTH OVERALL..... | 647'-0" |
| LENGTH BETWEEN PERPENDICULARS..... | 629'-3" |
| LENGTH ON KEEL..... | 620'-0" |
| BREADTH MOLDED..... | 70'-0" |
| DEPTH MOLDED..... | 36'-0" |
| DESIGNED SUMMER DRAFT..... | 25'-0" |
| SHEER FORWARD..... | 6'-10" |
| SHEER AFT..... | 5'-3" |
| LENGTH CARGO HOLD NO. 1..... | 150'-0" |
| LENGTH CARGO HOLD NO. 2..... | 168'-0" |
| LENGTH CARGO HOLD NO. 3..... | 144'-0" |
| CAMBER 16" IN 68'-6" | |
| DEAD RISE = 3" | |
| TUMBLE HOME = 9" | |
| BILGE RADIUS = 3'-9" | |

OFFICAL NO. =

GROSS TONNAGE =

NET TONNAGE =